

Source Guidance and Default Parameters

A. Volume and Area Source

The following table provides source types and default parameters for some of the common volume sources. The default volume source parameters should be used only when equipment-specific data cannot be determined.

PROCESS	Type	Release Height (m)	Lateral Dimension	Vertical Dimension
Unloading	Volume	1.5	0.6977	1.395
Conveyor Drop Point	Volume	1.5	0.4651	1.395
Crushing/Screening	Volume	2.5	1.1628	2.3256
Silo	Volume	3	1.1628	2.791
Hopper	Volume	3	0.6977	2.791
Elevator	Volume	5	1.1628	4.651
Bins	Volume	1	0.814	0.93

Generally, only haul roads and storage piles are modeled as area sources. Haul roads are modeled with a release height of 0 meters and a sigma-z of 1.4 meters. Storage piles are modeled with a release height of 2 meters and a sigma-z of 0 meters. The length of the X and Y sides for these sources are to be provided by the applicant.

B. Obstructed Point Sources

Mushroom caps, horizontal stacks, and similar sources are often difficult to model due to their unusual release characteristics. Specifically, diminished exit velocities, obstructions, and horizontal releases are difficult to model due to the uncertainty involved in determining a representative exit velocity. Therefore, it is the procedure of the Air Pollution Control Program to model this type of source with a minimal exit velocity (0.01 meter/ second). The actual stack height, diameter, and temperature should be used with this exit velocity in the modeling analysis.

C. Sources With Limited Hours of Operation

In situations where sources have limited operation, two different emission rates may need to be modeled. This depends on the averaging periods of the pollutant in question. For example, emergency generators are often limited to 500 hours of operations per year; however, they may not have a daily limit. This means that the generator could potentially run for 500

consecutive hours. If a PM_{10} analysis were performed, the maximum hourly emission rate would be modeled for the 24-hour averaging period. However, for the annual averaging period, an average emission rate would be calculated to account for 500 hours of operation. Any equipment that operates intermittently could be affected by the short-term averaging period and should be modeled in a manner similar to this example.